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PALEOGEOGRAPHIC MAPS OF NORTH AMERICA¹

BAILEY WILLIS
U. S. Geological Survey

13. EOCENE-OLIGOCENE NORTH AMERICA

The Eocene-Oligocene aspect of North America differed from the Cretaceous and resembled the present. The east and west were united. The Cordillera had begun its development as a system of many mountain chains, most, if not all, of which are represented in existing ranges; yet few, if any, of which have had an uninterrupted growth. They became high in the Eocene, but were greatly eroded in the Oligocene and Miocene. The volcanic activity which marks the Cordillera was very notable during the Eocene. The eastern part of the continent remained low.

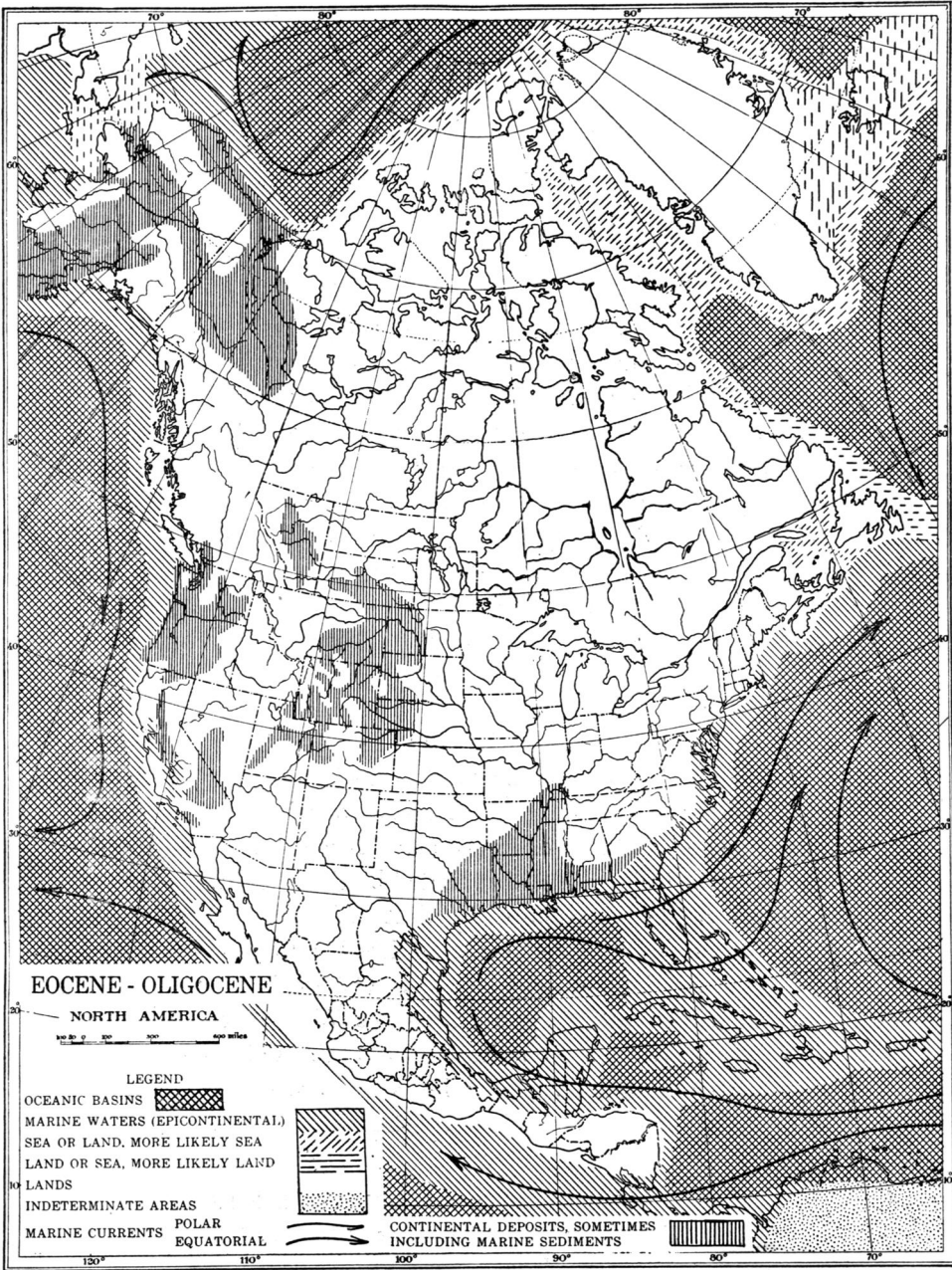
By erosion of the mountains and by contributions from the volcanoes great thicknesses of sediment accumulated in interior basins of the Cordillera. The deposits were in part fluvial, in part eolian, in minor part lacustrine. On the map their distribution is shown by the ruling for continental deposits in the central west.

In the Gulf region and also in Alaska extensive low lands and favorable climate produced extensive marshes which are now represented by coal beds and are also indicated by the vertical ruling.

The continental connections of North America during the Eocene and Oligocene appear to have been established and interrupted, as is shown by the relations of land animals. Osborn infers that there was intermigration with Europe during the Wasatch epoch,² and thenceforward separation from Europe until the Oligocene, when faunistic reunion took place. These inferences are suggested on the map by the temporary lands linking Alaska with Siberia and Greenland with England.

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² Osborn, H. F., "Cenozoic Mammal Horizons of Western North America," *U. S. Geological Survey Bull.* 361, 1909.



The region of the West Indies was the seat of an embayment of the Atlantic, beneath which was deposited the widespread Oligocene limestone, characterized by the fauna of a warm oceanic current. This fauna spread north along the southeastern coast of the United States.

I am indebted to Dr. Wm. H. Dall and Dr. Ralph Arnold for discussion of the distribution of marine faunas and their relation to inferred currents.